

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CORDIS CORPORATION,)	
)	
Plaintiff,)	
)	
v.)	C.A. No. 97-550 (SLR)
)	
MEDTRONIC VASCULAR, INC., et al.,)	
)	
Defendants.)	
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)	
MEDTRONIC VASCULAR, INC.,)	
)	
Plaintiff,)	C.A. No. 97-700 (SLR)
)	
v.)	
)	
CORDIS CORPORATION, et al.,)	
)	
Defendants.)	

**MEDTRONIC VASCULAR, INC.'S MOTION FOR JUDGMENT
AS A MATTER OF LAW OF NON-INFRINGEMENT**

Medtronic Vascular, Inc. ("Medtronic AVE") hereby moves for judgment as a matter of law that the accused MicroStent II, GFX and GFX II products do not infringe the patents-in-suit because the tubular members do not have a wall of substantially uniform thickness, as required by each of the asserted claims.

NATURE AND STAGE OF PROCEEDINGS

Cordis has asserted that Medtronic AVE literally infringes claims 23, 51 and 54 of the '762 patent and claims 1 and 3 of the '984 patent.

Cordis rested its case-in-chief on March 9, 2005.

STATEMENT OF FACTS

A. Medtronic AVE's Non-infringement Argument From The First Trial: Struts and Cross-sections

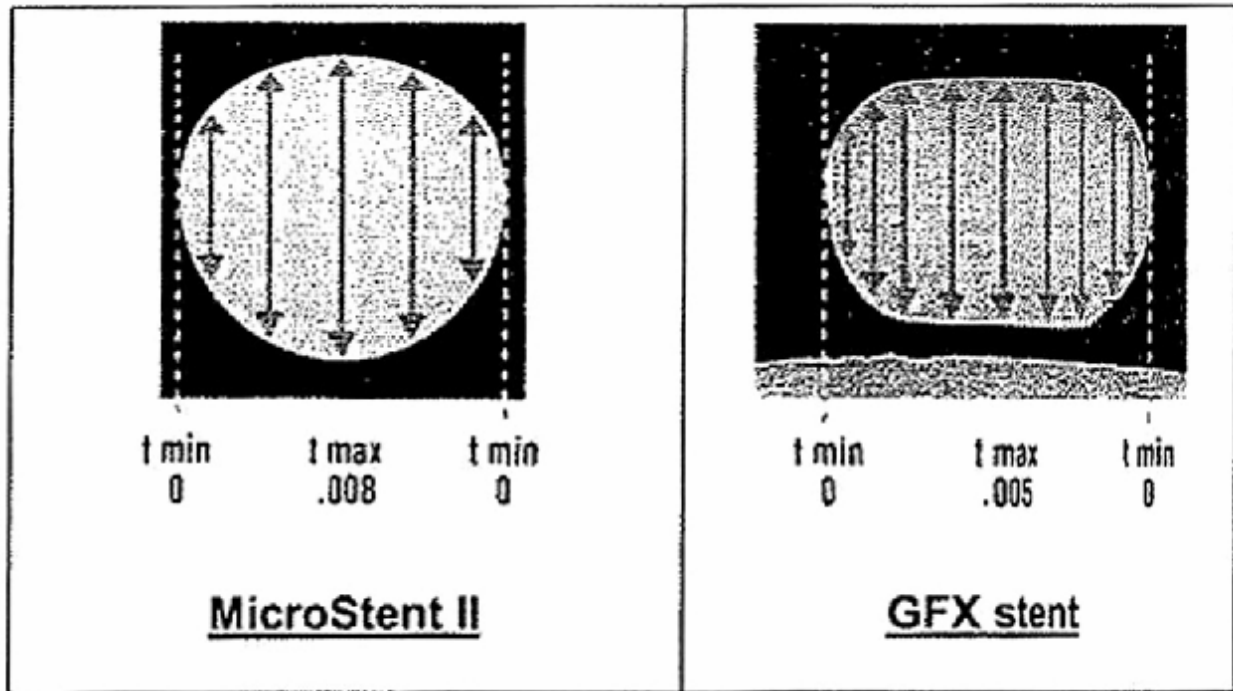
As this Court explained in ruling on JMOL motions following the first trial, Medtronic AVE's stents have two components, struts and crowns (D.I. 1127 at 19):

The rings are bent from their normal configuration into a sinusoidal design characterized by *a series of peaks and valleys called 'crowns' interconnected by substantially straight portions called 'struts.'*

In other words, the struts are the straight portions of the stent, and the crowns are the rounded portions.¹ During the first trial, both parties' infringement arguments were based on the thickness of the *struts*, not the crowns.

In the first trial, Medtronic AVE argued to the jury that the accused stents do not infringe, based on an analysis of the *cross-section* of the struts of the accused products. Medtronic AVE argued that these struts do not have a substantially uniform thickness because the differences between (1) the thickness of the diameter in the center of a strut's cross-section (shown in the MicroStent II figure below as "t max .008") and (2) the thickness of the strut's cross-section at either end of the stent (shown below as "t min 0") were substantial and not uniform (see D.I. 1294, at Ex. 33):

¹ During Cordis' case-in-chief, its expert Dr. Collins agreed that struts and crowns are different, and that they need to be measured separately (Tr. 511:16-512:9).



In other words, Medtronic AVE's proof of non-infringement focused on (1) the straight struts (not the rounded crowns of its stents); and (2) a cross-section of the struts (not a longitudinal measurement).

This Court granted Medtronic AVE's motion for JMOL, finding that the accused stents did not infringe under the doctrine of equivalents because of the doctrine of prosecution history estoppel. Cordis appealed.

B. The Federal Circuit Addresses Medtronic AVE's Non-Infringement Argument About Struts and Cross-Sections

This Court's explanation of "strut" and "crown" portions of Medtronic AVE's stents was not disputed before the Federal Circuit. Rather, the only issue before the Federal Circuit was whether Medtronic AVE's accused stents infringe in light of the fact that the struts have a variable thickness at the cross-section. Specifically, the issue was whether the struts "have a variable thickness because they have a round or ellipso-rectangular cross-section and

thus do not infringe because the cross-sectional thickness of its stent walls varies by more than 100 percent.” *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.2d 1357, 1362 (Fed. Cir. 2003). In other words, Medtronic AVE argued that the very fact that the struts had round (or ellipto-rectangular) cross-sections meant that its stents did not infringe. *Id.*; (*see also* graphic above).

The Federal Circuit disagreed with Medtronic AVE, and held that just because the struts have a round (or ellipto-rectangular) cross-section does not necessarily mean that the stent is non-infringing: “a stent formed from struts with circular or ellipto-rectangular cross-sections *can* have a wall of substantially uniform thickness.” *Cordis Corp.*, 339 F.2d at 1362 (emphasis added). In other words, the Federal Circuit held that round struts will not *inherently* prevent a stent from meeting the substantially uniform thickness limitation. But conversely, the fact that a stent has round struts does not automatically mean that it will meet the substantially uniform thickness limitation. A stent with round struts may, of course, have other features that preclude it from meeting that limitation.

C. The Federal Circuit Test Of How To Measure The Thickness of the Struts: Struts and Longitudinal Measurement

Having explained that stents with rounded (or ellipto-rectangular) struts may or may not be of substantially uniform thickness (and, thus, may or may not infringe), the Federal Circuit provided guidance for how to measure the thickness of the wall of a tubular member:²

² Although this Court has commented that it is strange for the Federal Circuit to set forth its own test, the Federal Circuit was simply explaining the only test possible for this particular case, given the untouched claim construction that “[t]he outer surface of the tubular member must be disposed in a common cylindrical plane.” The Federal Circuit reasoned that this Court had already properly held that Medtronic AVE’s argument that the width of the cross-section should be measured was inconsistent with the claim (continued . . .)

The district court described the wall surface by stating that “[t]he outer surface of the tubular member must be disposed in a common cylindrical plane.” That common ‘cylindrical plane’ is formed by an imaginary circle that intersects with the outermost point of each round strut. The thickness of the wall is equal to the diameter of each round strut, i.e., the distance between the outer point that intersects the wall surface and the corresponding inner point that intersects a similar imaginary cylindrical surface on the inside of the tubular member.

Cordis Corp., 339 F.3d at 1362. In other words, the Federal Circuit directed the parties and this Court to measure the thickness of the wall surface *longitudinally* along the tubular members, rather than measuring the cross-section. *See id.* at 1362 (referencing struts). As Medtronic AVE will explain more fully in its own case in chief, this is not inconsistent with the way that Medtronic AVE measures its crowns in its internal engineering documents and submissions to the FDA.

**D. Medtronic AVE’s Non-Infringement Argument On
Remand: Crowns and Longitudinal Measurement**

The Federal Circuit explained, based on the arguments before it, how to measure the thickness of an imaginary wall surface along its longitudinal axis. On remand, Medtronic AVE’s non-infringement argument is focused on the measuring the wall thickness of the tubular members along a longitudinal plane, which wall necessarily includes the tapered crowns. It is undisputed that, if the Federal Circuit’s test is applied to the crowns of the accused stents, Medtronic AVE does not infringe because the thickness of the wall surface of the tubular

(. . . continued)

construction, because the entire circumference of the round strut is not involved in making up the wall surface. So, the Federal Circuit instructed this Court and the parties to measure the parts of the stent that do make up the wall surface. The wall surface includes the crowns.

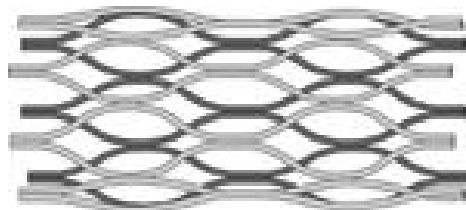
members varies by more than 100% at the crowns. The thickness also varies at the weld dips. Indeed, it is Cordis which is advocating a test inconsistent with the Federal Circuit decision because it is focused solely on the cross-sections of the crowns and struts of Medtronic AVE's stents.

ARGUMENT

Now that Cordis has closed its case-in-chief, it is clear that no reasonable juror could find that Medtronic AVE's stents infringe the asserted claims. Because the thickness of the wall of the tubular member varies by more than 100% at the tapered crowns as well as at the weld dips, it is not of substantially uniform thickness as required by the claims. Under the proper test, one measures the thickness of the wall by moving longitudinally along the length of the stent by looking at two imaginary circles, one on the outside, touching the outermost points of the circle, and one on the inside, touching the innermost points of the circle, and measuring the distance between these two circles – to the crowns. Because the wall of the tubular members varies in thickness by more than 100% at the ends of the crowns, as well as the weld dips, it is not substantially uniformly thick. There is no dispute that the thickness of the tubular members of Medtronic AVE's stents vary by more than 100% under this test. Indeed, Cordis did not so much as mention during its case the weld dips of Medtronic AVE's stents, which indisputably create a variation in thickness.

The Court expressed concern on Monday as to whether Medtronic AVE's noninfringement analysis is consistent with the Federal Circuit decision. We believe that the Court's concern may have been based on an impression that Medtronic AVE is arguing that its stents inherently do not infringe because they have rounded struts. That is not Medtronic AVE's argument.

Medtronic AVE is not arguing that, simply because its tubular members have rounded or ellipto-rectangular struts, they do not infringe. What Medtronic AVE is arguing is that it is the tapering of the wall thickness at the crowns -- not the fact that the accused stents have round struts -- that is the reason why Medtronic AVE does not infringe. In other words, it is the configuration of Medtronic AVE's stents, and not the starting material from which the stents are made (i.e., rounded or ellipto-rectangular struts), that results in non-uniform thickness. Indeed, Medtronic AVE does not dispute that, under the Federal Circuit holding, there can be stents with round cross-sections that do have a substantially uniform thickness (and, thus, might infringe). Shown below is such a stent that is made of rounded struts (i.e., wires) that has a wall surface of substantially uniform thickness:



While the Medtronic AVE stents have rounded struts, unlike the above stent, the wall surface of the tubular members of the Medtronic AVE stents are not of substantially uniform thickness at the end of the crowns or at the weld dips. Because of this variation in thickness, which is greater than 100%, the Medtronic AVE products do not infringe.

CONCLUSION

For the foregoing reasons, Medtronic AVE requests that the Court grant its motion for judgment as a matter of law.

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March 9, 2005
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CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on March 9, 2005 I electronically filed Medtronic Vascular's Motion For Judgment As A Matter Of Law Of Non-Infringement with the Clerk of the Court using CM/ECF which will send notification of such filing to the following:

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